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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,867	03/23/2001	Fredrik Sundqvist	VCC0083-US	6067
22242	7590	06/17/2004	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			KIM, CHONG HWA	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

9/

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/816,867	SUNDQVIST ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Chong H. Kim	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6,16,17 is/are allowed.
- 6) ☒ Claim(s) 7 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

The Examiner acknowledges the applicant's Amendment filed Apr 23, 2004 in response to the Office action made on Jan 20, 2004.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Francis, U.S. Patent 3,602,064 in view of Suzuki, U.S. Patent 4,793,206.

Francis shows, in Figs. 1-4, an arrangement for a parking brake comprising a lever 10 and a cable tensioning device 14, 16 but fails to show the two stage lever mechanism for removing slack and activating the parking brake.

Suzuki shows, in Figs. 1-10, an arrangement for a two-stage parking brake, the arrangement comprising;

a lever mechanism 15 and 33 connected to a wire 34, the lever mechanism configured to perform a first stage of operation (as described in column 3, lines 47-50 and shown in Fig. 2) in which slack is removed from the wire by the translational movement of the lever mechanism 15 upon activation of the lever and a second stage (Figs. 3 and 8) in which a force is exerted on the wire by the rotation movement of the lever mechanism 33 upon activation;

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wherein the arrangement includes a pin-in-slot configuration 20, 22 utilized for performing the translational movement in the first stage for removing slack from the wire;

wherein the arrangement is configured to apply no force multiplication during the performance of the translational movement in the first stage for removing slack from the wire;

a force sensing mechanism 30 configured to sense the amount of force being imposed on the brake wire and transition operation of the arrangement between translational and rotational movement dependent thereupon; and

a spring 36 incorporated in the force sensing mechanism and a degree of compression of the spring controlling the transition between translational and rotational movement.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the cable tensioning device of Francis with the two stage parking brake as taught by Suzuki in order to provide the cable being “always automatically maintained in a suitable tension condition and a maintenance-free device” as described in column 4, lines 24-26 by Suzuki.

As to the matter of the arrangement including a pin-in-slot configuration, Suzuki shows, as discussed above in the rejection of claim 7 and particularly in Fig. 10, the arrangement for a two-stage parking brake comprising a key-in-slot configuration 10, 42 utilized for performing the translational movement in the first stage for removing slack from the brake wire, but fails to show a pin-in-slot configuration.

It would have been obvious to modify the key-in-slot configuration with a pin-in-slot configuration in Suzuki since the Examiner takes Official Notice of the equivalence of such engaging configurations for their use in the relative movement in mechanical arrangement and

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the selection of any of these known configurations to perform the relative movement in Suzuki would be within the level of ordinary skill in the art.

***Allowable Subject Matter***

3. Claims 1-6, 16, and 17 are allowed.

***Response to Arguments***

4. In response to the applicant's argument that Suzuki fails to show a parking brake arrangement, it is the Examiner's understanding that Suzuki's two stage lever actuation invention deals with arrangements in both the clutch and brake systems. Suzuki expounds on the problems in the control cable used in a clutch device or a brake device in an automobile, from column 1, line 18 to column 3, line 14. The main object of the invention is to rectify the problems by providing an automatic tension-regulating device for a control wire. The clutch system is disclosed, as one of the examples in the application, to show how one of ordinary skill in the art may apply the invention in the arrangement utilizing such control wire. However, Suzuki does not limit the device to be used only in the clutch system. Therefore, it would have been obvious to a person of ordinary skill in the art to modify the invention of Francis with the device as taught by Suzuki.

5. In response to the applicant's argument that element 15 of Suzuki cannot be considered a lever, it is noted that claim 7 recites the "lever mechanism", not "lever". A lever mechanism is interpreted as parts that may directly or indirectly cooperate with a lever in translating motions or

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forces. Therefore, element 15 that is directly connected to the lever 14 can be included in the lever mechanism.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (703) 305-0922. The examiner can normally be reached on Tuesday - Friday; 8:00 - 6:00.

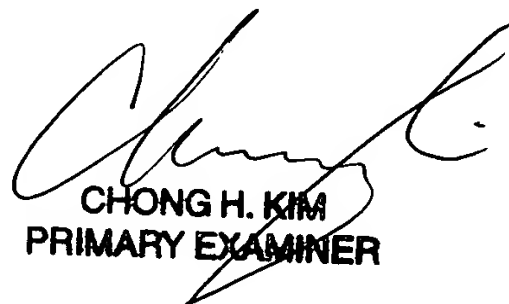
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk

June 11, 2004



CHONG H. KIM  
PRIMARY EXAMINER